REMARKS

Status of Claims

Applicant respectfully requests reconsideration and allowance of all of the claims of the Application. The status of the claims is as follows:

- Following the amendments herein, claims 1-27, 29-38 and 40-46 are pending;
- Claims 28 and 39 are canceled herein;
- Claims 1, 12, 17, 20, 23, 29, 33, 38 and 43 are amended herein;
- No new claims are added herein; and
- Claims 1, 12, 17, 20, 23, 33 and 38 are independent.

Support for the amendments to the claims is found in the specification, for example, at least at paragraphs 0052 and 0084-0093 of Applicant's published application, US2005/0210151.

Cited Documents

The following documents have been applied to reject one or more claims of the Application:

- **Whiting**: Whiting et al., U.S. Patent No. 5,146,221
- **Vidal**: Vidal et al., U.S. Patent No. 2002/0078241
- **Tokunaga**: Tokunaga et al., U.S. Patent No. 5,968,132
- **Suzuki**: Suzuki, U.S. Patent Application Publication No. 2004/0008896

Claim Rejections under 35 USC § 103(a)

Claims 1-16 and 23-46 stand rejected under 35 USC § 103(a) as allegedly being obvious over Whiting in view of Vidal. Claim 17 stands rejected under 35 USC § 103(a) as allegedly being obvious over Whiting in view of Tokunaga. Claims 18-22 stand rejected under 35 USC § 103(a) as allegedly being obvious over Whiting in view of Tokunaga and in view of Vidal. Claims 23-32 and 38-46 stand rejected under 35 USC § 103(a) as allegedly being obvious over Whiting in view of Vidal in view of Suzuki.

Independent Claim 1

Applicant submits that the combination of Whiting with Vidal, Tokunaga, Suzuki and/or the other documents of record does not teach or suggest at least the following elements, as recited in independent claim 1 (with emphasis added):

> ... compressing the data at the first device by finding an index in a lookup table that matches an initial sequence in the data, the lookup table comprising a plurality of entries, each said entry being discoverable utilizing a particular one of a plurality of said indices, each said entry referencing whether a corresponding said index is located in a history buffer, and if so, further references one or more locations of the corresponding said index in the history buffer;
>
> when the corresponding said entry of the matching index references a plurality of said locations:
>
> for each said location, comparing a sequence at the location having the matching index with a sequence in the data, said sequence including the initial sequence;
>
> deriving a matching sequence from the comparison based on at least one of a length and the location of the sequence at each said location;
>
> representing the matching sequence using a representation that includes the length and the location of the matching sequence in the history buffer;

forming compressed data that includes at least one of said representations;

further compressing the compressed data by encoding the at least one representation that includes the length and the location of the matching sequence, the at least one representation being encoded using a first Huffman table for encoding the length using Huffman encoding;

using a last recently used (LRU) table for encoding the location of the matching sequence in the history buffer, the LRU table listing a plurality of recently used locations of recent matching sequences;

when the location of the matching sequence is not in the LRU table, encoding the location of the matching sequence with Huffman encoding using a second Huffman table, different from the first Huffman table; and

streaming the compressed data over the network to the second device.

Applicant respectfully agrees with the assertion at page 7 of the Office Action that Whiting does not explicitly teach the further compressing compressed data. Instead, the Office Action asserts that Vidal teaches this element of the above-emphasized clause of claim 1, citing paragraphs 0041 and 0042 of Vidal, along with col. 15, lines 11-24 of Whiting. However, Applicant respectfully submits that Vidal does not teach or suggest Applicant's above-emphasized claim elements because Vidal provides no teaching or enablement as to how to achieve the additional compression described in Applicant's claim. In particular the cited portions of Vidal merely describe the following:

> [0041] In a preferred embodiment of the invention, the compression algorithm may operate as follows. First, the algorithm may search for symbols (characters) that appear more frequently than others in the data. Then, *the algorithm may build a tree, for example a Huffman Tree, as is known in the art, that stores the symbols and their respective frequencies*. Each symbol may then be assigned with a code whose length is

inversely proportional to the frequency of the symbol. For example if the symbol `A` appears significantly more frequently than the symbol `B`, then the code length of `A` should be shorter than that of `B`. During the encoding process, the algorithm may write the symbol code into memory, instead of the data corresponding to the symbol. This code includes information sufficient to reconstruct the symbol and its frequency. Thus, during decoding, the code may be read and the Huffman tree may be used to reconstruct the original data, as is known in the art. The tree itself may be transferred together with the compressed data, as part of the general compression header as is known in the art.

[0042] In order to determine whether a file is compressible, and if so, which compression algorithm should optimally be used, the compress program may perform the following. First, the compress program may read a block of data having a predetermined size, for example, a block size of about 7 Kilobytes has been found suitable for 56 Kbps modem communication links. *Then, the compress programs* [sic] *tries to compress the block using various algorithms, for example, either or both of the above described dictionary and Huffman encoding algorithms. The compress program may also try various combinations of the algorithms described above and/or other algorithms. Based on these trials, the compress program selects the algorithm or combination of algorithms which yields the highest compression ratio.* At this point, the compress program may determine whether the compression ratio is sufficiently high to warrant compression of the entire file, as indicated at block 60, by determining if the compression ratio exceeds a preset threshold. The threshold may correspond to a reduction of a predetermined percentage of the amount of data in the chunk due to compression, for example, a 5% reduction, or any other threshold that yields optimal results based on experimentation with a specific file format. If the compression ratio is determined to be sufficiently high, the compress program proceeds to write the compressed data block onto the disk. However, if the compression ratio is not sufficient, i.e., the size of the original file may not be significantly reduced, then the compress program may write the original data block to disk.

(Vidal, par. 0041-0042 – emphasis added).

From a review of the above-reproduced portion of Vidal, and the remainder of Vidal, Applicant has been unable to discern any portion that teaches or suggests

"***further compressing the compressed data by encoding the at least one representation that includes the length and the location of the matching sequence***," as recited in Applicant's claim 1. Instead, Vidal is merely directed to determining whether a file is compressible. (Vidal, par. 0042, lines 1-2). Vidal further merely states that the compress program may read a block of data and try to compress the data using various algorithms, "for example, either or both of the above described dictionary and Huffman encoding algorithms." (Vidal, par. 0042, lines 8-10). Vidal further describes that the "compress program may also try various combinations of the algorithms described above and/or other algorithms." (Vidal, par. 0042, lines 10-12). "Based on these trials, the compress program selects the algorithm or combination of algorithms which yields the highest compression ratio." (Vidal, par. 0042, lines 12-15).

Consequently, Applicant respectfully submits that there is no teaching or suggestion in Vidal of "***further compressing the compressed data by encoding the at least one representation that includes the length and the location of the matching sequence***," as recited in Applicant's claim 1. For example, Vidal merely provides a general statement that "various combinations" of algorithms may be tried. Consequently, Vidal provides no enablement regarding compressing at least one representation that includes the length and the location of the matching sequence, or even a suggestion this concept.

Furthermore, the cited portion of Whiting fails to make up for the shortcomings in Vidal pointed out above. For example, the cited portion of Whiting merely describes the following:

> At block 174, a determination is made as to whether the current string of length MATCHLEN+1 at location HISTORY (NEXT) is equal to the contents of the internal match buffer. *The internal match buffer contains all MATCHLEN bytes of the currently matching string.* This buffer allows faster searching for a new string if the initial attempt to match this string fails. An efficiency occurs because the bytes to be matched are immediately available within the chip instead of having to reach them from RAM each time a match is performed. Stated differently, the matching buffer acts as a look aside buffer to efficiently enhance processing. The match buffer is of finite length (MAXSTR=8 bytes in the preferred embodiment).
>
> (Whiting, col. 15, lines 11-24 – emphasis added).

From a review of the above-reproduced portion of Whiting, and the remainder of Whiting, Applicant has been unable to discern any portion of Whiting that teaches or suggests "***further compressing the compressed data by encoding the at least one representation that includes the length and the location of the matching sequence***," as recited in Applicant's claim 1. Instead, Whiting merely discusses that an "internal match buffer contains all MATCHLEN bytes of the currently matching string." (Whiting, col. 15, lines 14-16). Thus, Whiting does not contemplate encoding a length and location of a matching sequence. Accordingly, Applicant respectfully submits that the combination of Whiting with Vidal does not teach or suggest at least these elements of the above-emphasized clause of Applicant's claim 1.

Furthermore, Applicant respectfully submits that there is no teaching or suggestion in Whiting or Vidal of "***the at least one representation being encoded using a first Huffman table for encoding the length***," as also recited in Applicant's claim 1. Instead, Vidal merely describes that "the compress programs [sic] tries to compress the block using various algorithms, for example, either or both of the above described dictionary and Huffman encoding algorithms." (Vidal, par. 0042, lines 7-10)

"The compress program may also try various combinations of the algorithms described above and/or other algorithms." (Vidal, par. 0042, lines 10-12). Additionally, Whiting merely describes that an "internal match buffer contains all MATCHLEN bytes of the currently matching string." (Whiting, col. 15, lines 14-16). Accordingly, Applicant respectfully submits that the combination of Whiting with Vidal does not teach or suggest at least using a first Huffman table for encoding the length, as recited in Applicant's claim 1. Instead, for example, Vidal merely makes a general statement regarding trying various combinations of algorithms described or other algorithms.

Furthermore, Applicant respectfully submits that there is no teaching or suggestion in Whiting or Vidal of "***using a last recently used (LRU) table for encoding the location of the matching sequence in the history buffer, the LRU table listing a plurality of recently used locations of recent matching sequences***," as also recited in Applicant's claim 1. Instead, Whiting merely describes that an "internal match buffer contains all MATCHLEN bytes of the currently matching string." (Whiting, col. 15, lines 14-16). Thus, this portion of Whiting does not teach or suggest an LRU table listing a plurality of recently used locations of recent matching sequences, and further does not teach or suggest using an LRU table encoding a location of a matching sequence. Rather, Whiting merely describes a buffer containing "bytes of the currently matching string." (Whiting, col. 15, lines 14-16). Accordingly, Applicant respectfully submits that the combination of Whiting with Vidal does not teach or suggest using an "***LRU table for encoding the location of the matching sequence***," as recited in Applicant's claim 1.

Further, the combination of Vidal with Whiting also does not teach or suggest "***when the location of the matching sequence is not in the LRU table, encoding the location of the matching sequence with Huffman encoding using a second Huffman table, different from the first Huffman table***," as also recited in Applicant's claim 1. Instead, Vidal merely describes that the compress program tries to compress the block using various algorithms, "for example, either or both of the above described dictionary and Huffman encoding algorithms." (Vidal, par. 0042, lines 7-10). Further, Whiting merely describes a buffer containing "bytes of the currently matching string." (Whiting, col. 15, lines 14-16). Thus, there is no teaching or suggestion in Vidal or Whiting of "***encoding the location of the matching sequence with Huffman encoding using a second Huffman table, different from the first Huffman table***," or the other above-recited elements of this clause.

In the Response to Arguments on page 3 of the Office Action, the Examiner states the following:

> Specifically, Applicant argues Whiting-Vidal fails to teach "when the location of the matching sequence is not in the LRU table, the location of the matching sequence is encoded with Huffman encoding using a second Huffman table, different from the first Huffman table." Remarks, pg 30, par 2.
>
> It is evident from the detailed mappings found in the below rejection(s) that Whiting-Vidal teaches this functionality. Whiting teaches using maintaining a history buffer of data and encoding subsequent data by mapping it to locations in the history buffer. Whiting col 9/ln 31-44. Whiting further teaches using an internal match buffer, analogous to a look aside buffer, to efficiently enhance processing by searching for the contents of the current string. Whiting col 15/ln 11-24. Vidal teaches a compression program that takes a block of data having a predetermined size and tries to compress the block using various compression algorithms. Vidal at 0042. Vidal teaches using Huffman encoding as one of the compression algorithms. Vidal at 0042. Vidal

> further teaches using various combinations of algorithms to compress the data. Vidal at 0042. Vidal teaches that the program selects the algorithm that yields the highest compression ratio. Vidal at 0042. One of ordinary skill in the art would readily understand that by a "combination of algorithms" Vidal means applying one compression algorithm to a data, and subsequently applying a different compression algorithm to the result of the first algorithm. It would be readily apparent to one of ordinary skill in the art that Vidal's teachings can be straightforwardly applied to the result of Whiting's algorithm, including the results after a miss in the look aside buffer, to further compress the data. Thus, Applicant's arguments drawn toward distinction of the claimed invention and the prior art teachings on this point are not considered persuasive.

In response, Applicant respectfully notes that Vidal merely provides a general description of trying various combinations of compression algorithms and does not teach or suggest the above-emphasized elements of Applicant's claim. Furthermore, Applicant respectfully notes that the combination of Vidal with Whiting does not teach or suggest an LRU table, as recited in Applicant's claim 1, using such an LRU table for encoding the location of the matching sequence in the history buffer, or encoding a location of the matching sequence with Huffman encoding when the location of the matching sequence is not in the LRU table. Instead, for example, Whiting merely describes a buffer containing "bytes of the currently matching string." (Whiting, col. 15, lines 14-16). Consequently, Applicant respectfully submits that combining the teachings of Vidal with those of Whiting still does not teach or suggest the above-emphasized elements of Applicant's claim 1.

Applicant has shown above by direct quotation that the cited portions of Whiting and Vidal are very different on their faces from the above-emphasized clauses of Applicant's claim 1. Accordingly, insofar as that Whiting and Vidal do not teach or

suggest at least the above-emphasized clauses of Applicant's claim 1, and insofar as that the Examiner has failed to present any evidence or explanation that actually connects the cited portions of Whiting and Vidal to the express language of Applicant's claim 1, as discussed above, Applicant respectfully points out that the documents cited by the Examiner do not establish a *prima facie* case of unpatentability of Applicant's claim 1.

Tokunaga, Suzuki and the other documents of record do not make up for the shortcomings in the teachings of Whiting and Vidal pointed out above. In view of the foregoing, Applicant respectfully submits that claim 1 is allowable over Whiting, Vidal, Tokunaga, Suzuki and/or the other documents of record, and is in condition for allowance. Applicant respectfully requests that the Examiner withdraw the rejection of claim 1. Further, for at least the foregoing reasons, Applicant respectfully asks the Examiner to hold claim 1 allowable and to issue a Notice of Allowance of same.

Dependent Claims 2-11

Claims 2-11 ultimately depend from independent claim 1. As discussed above, claim 1 is allowable over the cited documents. Therefore, claims 2-11 are also allowable over the cited documents of record at least for their dependency from an allowable base claim. These claims may also be allowable for the additional features that each recites.

For example, dependent claim 6 includes "***using the second Huffman table to also compress literal sequences that have no matching index in the history buffer; and streaming the compressed literal sequences to the second device.***"

The Office Action asserts that Applicant's claim 6 is taught by Vidal at paragraphs 0047 and 0002. However, Applicant respectfully notes that paragraph 0047 of Vidal merely discusses a decompress program that is adapted to decompress data received. (Vidal, par. 0047). Further, paragraph 0002 of Vidal merely discusses streaming of data. (Vidal, par. 0047). Consequently, Applicant respectfully submits that Vidal does not teach or suggest "***using the second Huffman table to also compress literal sequences that have no matching index in the history buffer***," or the other elements of Applicant's claim 6. Accordingly, Applicant respectfully submits that dependent claim 6 is separately allowable over the documents of record.

Independent Claim 12

Applicant submits that the combination of Whiting with Vidal, Tokunaga, Suzuki and/or the other documents of record does not teach or suggest at least the following elements, as recited in independent claim 12 (with emphasis added):

> ***configuring data to include the representation, advancing the current pointer by the length of the matching sequence, and encoding at least a portion of the representation to further compress the data by encoding the representation, the representation being encoded using a first Huffman table for encoding the length using Huffman encoding;***
>
> ***using a last recently used (LRU) table for encoding the location of the matching sequence in the history buffer, the LRU table listing a plurality of recently used locations of recent matching sequences;***
>
> ***when the location of the matching sequence is not in the LRU table, encoding the location of the matching sequence with Huffman encoding using a second Huffman table, different from the first Huffman table;***

The above-emphasized clauses of claim 12 include elements that are similar to those discussed above with respect to independent claim 1. Accordingly, claim 12 is allowable at least for these elements for the reasons discussed above with respect to claim 1. Applicant respectfully requests that the Examiner withdraw the rejection of claim 12. Further, for at least the foregoing reasons, Applicant respectfully asks the Examiner to hold claim 12 allowable and to issue a Notice of Allowance of same.

Dependent Claims 13-16

Claims 13-16 ultimately depend from independent claim 12. As discussed above, claim 12 is allowable over the cited documents. Therefore, claims 13-16 are also allowable over the cited documents of record at least for their dependency from an allowable base claim. These claims may also be allowable for the additional features that each recites.

Independent Claim 17

Applicant submits that the combination of Whiting with Vidal, Tokunaga, Suzuki and/or the other documents of record does not teach or suggest at least the following elements, as recited in independent claim 17 (with emphasis added):

> ... adding data to a history buffer at the first device for compression;
>
> updating a lookup table that references the history buffer to include the added data, the lookup table comprising a plurality of entries, each said entry being discoverable utilizing a particular one of a plurality of indices, each said entry referencing whether a corresponding said index is located in the history buffer, and if so,

further referencing one or more locations of the corresponding said index in the history buffer;

starting a current pointer at the added data in the history buffer;

finding one said index in the lookup table that matches an initial sequence at the current pointer;

determining that the corresponding said entry of the matching index references a plurality of said locations;

comparing a sequence at each said location having the matching index with a sequence in the added data that includes the initial sequence;

deriving a matching sequence from the comparison;

representing the matching sequence with a representation that includes the location and a length of the matching sequence in the history buffer;

forming compressed from the packet of data that includes the representation;

advancing the current pointer by the length of the matching sequence;

using Huffman encoding to compress literal sequences that have no matching index in the history buffer, the Huffman encoding using a frequency of occurrences table generated from the data and a variable length string assigned as a prefix to each literal sequence for uniquely representing the literal sequence;

when the current pointer has advanced through the packet of data, packetizing the compressed data for streaming; and

streaming the packetized compressed data over the network to the second device.

Applicant respectfully submits that the combination of Whiting with Vidal, Tokunaga and/or Suzuki does not teach or suggest "***using Huffman encoding to compress literal sequences that have no matching index in the history buffer, the Huffman encoding using a frequency of occurrences table generated from the data and a variable length string assigned as a prefix to each literal sequence for uniquely representing the literal sequence***," as recited in Applicant's amended claim

17. For example in the rejections of dependent claims 6, 13, 28 and 39, having similar language, the Office Action asserts that using a Huffman table to compress literal sequences is taught at par. 0047 of Vidal. However, Applicant respectfully notes that par. 0047 of Vidal merely describes the following:

> [0047] It should be noted that decompress program 24 is preferably adapted to decompress the data received and provide it to the web browser on the fly, i.e., during streaming. In practice, the decompression component receives a first packet or chunk of compressed data, decompresses it, and sends it to the web browser which can begin displaying the data, as described above. The program may then continue processing the next packet or chunk of data. As the data continues to flow in chunks, each chunk of data is individually decompressed (if necessary) and delivered to the web browser.

From the foregoing, it is apparent that Vidal merely describes a decompress program adapted to decompress data received and provide it to a web browser on the fly. (Vidal, par. 0047). Consequently, Applicant respectfully submits that Vidal does not teach or suggest "***using Huffman encoding to compress literal sequences that have no matching index in the history buffer, the Huffman encoding using a frequency of occurrences table generated from the data and a variable length string assigned as a prefix to each literal sequence for uniquely representing the literal sequence***," as recited in Applicant's amended claim 17. Whiting, Tokunaga, Suzuki and the other documents of record do not make up for the shortcomings in the teachings of Vidal pointed out above.

Applicant has shown above by direct quotation that the cited portion of Vidal is very different on its face from the above-emphasized clause of Applicant's claim 17. Accordingly, insofar as that Vidal does not teach or suggest at least the above-

emphasized clause of Applicant's claim 17, Applicant respectfully points out that the documents cited by the Examiner do not establish a *prima facie* case of unpatentability of Applicant's claim 17.

In view of the foregoing, Applicant respectfully submits that claim 17 is allowable over Whiting, Vidal, Tokunaga, Suzuki and/or the other art of record, and is in condition for allowance. Accordingly, Applicant respectfully asks the Examiner to hold claim 17 allowable and to issue a Notice of Allowance of same.

Dependent Claims 18-19

Claims 18-19 ultimately depend from independent claim 17. As discussed above, claim 17 is allowable over the cited documents. Therefore, claims 18-19 are also allowable over the cited documents of record at least for their dependency from an allowable base claim. These claims may also be allowable for the additional features that each recites.

Independent Claim 20

Applicant submits that the combination of Whiting with Vidal, Tokunaga, Suzuki and/or the other documents of record does not teach or suggest at least the following elements, as recited in independent claim 20 (with emphasis added):

> ***compressing the data further by encoding the representation, the representation being encoded using a first Huffman table for encoding the length using Huffman encoding;***

using a last recently used (LRU) table for encoding the location of the matching sequence in the history buffer, the LRU table listing a plurality of recently used locations of recent matching sequences;

when the location of the matching sequence is not in the LRU table, encoding the location of the matching sequence with Huffman encoding using a second Huffman table, different from the first Huffman table;

The above-emphasized clauses of claim 20 include elements that are similar to those discussed above with respect to independent claim 1. Accordingly, claim 20 is allowable at least for these elements for the reasons discussed above with respect to claim 1. Applicant respectfully requests that the Examiner withdraw the rejection of claim 20. Further, for at least the foregoing reasons, Applicant respectfully asks the Examiner to hold claim 20 allowable and to issue a Notice of Allowance of same

Dependent Claims 21-22

Claims 21-22 ultimately depend from independent claim 20. As discussed above, claim 20 is allowable over the cited documents. Therefore, claims 21-22 are also allowable over the cited documents of record at least for their dependency from an allowable base claim. These claims may also be allowable for the additional features that each recites.

Independent Claim 23

Applicant submits that the combination of Whiting with Vidal, Tokunaga, Suzuki and/or the other documents of record does not teach or suggest at least the following elements, as recited in independent claim 23 (with emphasis added):

> ***compress at least a portion of the representation by encoding the representation, the representation being encoded using a first Huffman table for encoding the length using Huffman encoding;***
>
> ***using a last recently used (LRU) table for encoding the location of the matching sequence in the history buffer, the LRU table listing a plurality of recently used locations of recent matching sequences;***
>
> ***when the location of the matching sequence is not in the LRU table, encode the location of the matching sequence with Huffman encoding using a second Huffman table, different from the first Huffman table; and***
>
> ***using Huffman encoding to compress literal sequences that have no matching index in the history buffer, the Huffman encoding using a frequency of occurrences table generated from the data and a variable length string assigned as a prefix to each literal sequence for uniquely representing the literal sequence.***

The above-emphasized clauses of claim 23 include elements that are similar to those discussed above with respect to independent claims 1 and 17. Accordingly, claim 23 is allowable at least for these elements for the reasons discussed above with respect to claims 1 and 17. Applicant respectfully requests that the Examiner withdraw the rejection of claim 23. Further, for at least the foregoing reasons, Applicant respectfully asks the Examiner to hold claim 23 allowable and to issue a Notice of Allowance of same.

Dependent Claims 24-27 and 29-32

Claims 24-27 and 29-32 ultimately depend from independent claim 23. As discussed above, claim 23 is allowable over the cited documents. Therefore, claims 24-27 and 29-32 are also allowable over the cited documents of record at least for their dependency from an allowable base claim. These claims may also be allowable for the additional features that each recites.

Independent Claim 33

Applicant submits that the combination of Whiting with Vidal, Tokunaga and/or the other documents of record does not teach or suggest at least the following elements, as recited in independent claim 33 (with emphasis added):

> ***encode the length using the first Huffman table,***
>
> ***encode the location of the matching sequence using a last recently used (LRU) table, the LRU table listing a plurality of recently used locations of recent matching sequences;***
>
> ***when the location of the matching sequence is not in the LRU table, the location of the matching sequence is encoded using the second Huffman table, and advance the current pointer by the length of the matching sequence;***
>
> ***if the corresponding said entry of the matching index does not reference any said location, configure data to include the initial sequence, encode literal bytes of the initial sequence using the second Huffman table and a variable length string assigned as a prefix to each literal byte for uniquely representing the literal byte,***
>
> ***when an encoded representation is present in the configured data, the decompression module being configured to decode the representation using the LRU table, the third and fourth Huffman tables and find the matching sequence in the second said history buffer based on a decoded location and a decoded length indicated by the representation.***

The above-emphasized clauses of claim 33 include elements that are similar to those discussed above with respect to independent claims 1 and 17. Accordingly, claim 23 is allowable at least for these elements for the reasons discussed above with respect to claims 1 and 17. In addition, claim 33 includes ***when an encoded representation is present in the configured data, the decompression module being configured to decode the representation using the LRU table, the third Huffman table and the fourth Huffman table, and find the matching sequence in the second said history buffer based on a decoded location and a decoded length indicated by the representation.*** From a review of Whiting, Vidal, Tokunaga, Suzuki and the other documents of record, Applicant has been unable to discern any portion of these documents that teaches or suggests these elements. For example, the cited portion of Vidal, par. 0042, merely discusses that the compress program "tries to compress the block using various algorithms, for example, either or both of the above described dictionary and Huffman encoding algorithms." (Vidal, par. 0042). "The compress program may also try various combinations of the algorithms described above and/or other algorithms." (Vidal, par. 0042). Consequently, Applicant respectfully submits that Vidal does not teach or suggest a decompression module being configured to decode the representation using the LRU table, the third Huffman table and the fourth Huffman table, and find the matching sequence in the second said history buffer.

In view of the foregoing, Applicant respectfully submits that claim 33 is allowable over Whiting, Vidal, Tokunaga, Suzuki and/or the other documents of record, and is in condition for allowance. Applicant respectfully requests that the Examiner withdraw the rejection of claim 33. Further, for at least the foregoing reasons, Applicant

respectfully asks the Examiner to hold claim 33 allowable and to issue a Notice of Allowance of same.

Dependent Claims 34-37

Claims 34-37 ultimately depend from independent claim 33. As discussed above, claim 33 is allowable over the cited documents. Therefore, claims 34-37 are also allowable over the cited documents of record at least for their dependency from an allowable base claim. These claims may also be allowable for the additional features that each recites.

Independent Claim 38

Applicant submits that the combination of Whiting with Vidal, Tokunaga, Suzuki and/or the other documents of record does not teach or suggest at least the following elements, as recited in independent claim 38 (with emphasis added):

> ***compress the representation by encoding the representation, the representation being encoded using a first Huffman table for encoding the length using Huffman encoding;***
>
> ***use a last recently used (LRU) table for encoding the location of the matching sequence in the history buffer, the LRU table listing a plurality of recently used locations of recent matching sequences;***
>
> ***when the location of the matching sequence is not in the LRU table, encode the location of the matching sequence with Huffman encoding using a second Huffman table, different from the first Huffman table; and***
>
> ***use Huffman encoding to compress literal sequences that have no matching index in the history buffer, the Huffman encoding using a frequency of occurrences table generated from the data and a variable length string assigned as a***

prefix to each literal sequence for uniquely representing the literal sequence.

The above-emphasized clauses of claim 38 include elements that are similar to those discussed above with respect to independent claims 1 and 17. Accordingly, claim 38 is allowable at least for these elements for the reasons discussed above with respect to claims 1 and 17. Applicant respectfully requests that the Examiner withdraw the rejection of claim 38. Further, for at least the foregoing reasons, Applicant respectfully asks the Examiner to hold claim 38 allowable and to issue a Notice of Allowance of same.

Dependent Claims 40-46

Claims 40-46 ultimately depend from independent claim 38. As discussed above, claim 38 is allowable over the cited documents. Therefore, claims 40-46 are also allowable over the cited documents of record at least for their dependency from an allowable base claim. These claims may also be allowable for the additional features that each recites.

Conclusion

For at least the foregoing reasons, all pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that would prevent allowance of this application, Applicant requests that the Examiner contact the undersigned representative before issuing a subsequent Action.

Respectfully Submitted,

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/Colin D. Barnitz 35061/ Dated: January 21, 2010

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